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DEPARTMENT OF TRADE AND COMMERCE

DOMINION BUREAU OF STATISTICS

CENSUS OF INDUSTRY

GENERAL MANUFACTURES BRANCH

REPORT

ON THE

CORDAGE, ROPE & TWINE INDUSTRY

IN

CANADA

1940



OTTAWA
1941

Price 25 cents

DEPARTMENT OF TRADE AND COMMERCE
DOMINION BUREAU OF STATISTICS
GENERAL MANUFACTURES BRANCH
OTTAWA - CANADA

Dominion Statistician:	R. H. Coats, LL.D., F.R.S.C., F.S.S. (Hon.)
Chief, General Manufactures Branch:	A. Cohen, B.Com.

THE CORDAGE, ROPE AND TWINE INDUSTRY IN CANADA, 1940.

The eleven establishments listed in the cordage, rope and twine industry in 1940 reported a gross value of production of \$9,192,945, and a capital investment in fixed and current assets of \$12,190,563. Persons employed in the industry numbered 1,285 with a salary and wage bill amounting to \$1,533,026, while materials used had a value at the factory of \$4,903,793. The value added by manufacture amounted to \$4,159,212.

Both the volume and value of production were substantially higher in 1940. Compared with the previous year there was an increase of \$4,226,871 or 85.1 per cent in the gross value of production. The increase in the volume of production was, however, not as large and is reflected in an increase of only 31.4 per cent in the number of employees and 45.2 per cent in the amount of salaries and wages paid. There were also increases of \$1,814,463 in the capital invested and \$2,005,352 in the value added by manufacture. The increase in capital was due to an increase of \$1,658,502 in the inventories of raw and finished materials, an increase of \$305,624 in the fixed capital and a decrease of \$149,663 in the cash and accounts receivable carried.

Ontario is the leading producer of cordage, rope and twine. The six plants located there produced in 1940, 83 per cent of the total output, they furnished employment to 81 per cent of the employees and contributed 87 per cent of the total capital invested in the industry.

From the standpoint of both volume and value, binder twine is the principal product manufactured by this industry. In 1940 there were produced 76,630,841 pounds, valued at the factory at \$5,439,612, or at an average selling price of 7.1 cents per pound as against 5.7 cents per pound in 1939. The output of binder twine represented 59 per cent of the total value of the products made in 1940. The output of rope totalled 11,964,604 pounds, valued at \$1,981,678, twines for sale 7,157,009 pounds, valued at \$1,250,926, and all other products had a value of \$520,729. Compared with 1939, the output of binder twine was 56 per cent higher. Twines made for sale were 40 per cent higher while the production of rope increased 47 per cent. Table 3 gives detailed statistics of production for 1939 and 1940, while table 4 gives the consumption of binder twine in Canada for the past few years.

Hard fibres such as manila hemp, African hemp and sisal, Java and Mexican sisal, etc., constitute the principal materials used by the industry. The amount used in 1940 was valued at \$3,744,679 or over 76 per cent of the total cost of materials used.

Imports and exports of finished products and raw materials used by the industry during 1939 and 1940 are given in tables 13 and 14.

THE CORDAGE, ROPE AND TWINE INDUSTRY IN CANADA, 1940.

Table 1. - Principal Statistics representative years, 1921 - 1940.

Year and Provinces	Estab-lish-ments	Capital Invested	Em-ployees	Salaries and Wages	Cost of Materials Used	Gross Value of Production
	No.	\$	No.	\$	\$	\$
1921	9	7,861,066	824	1,055,462	4,620,408	7,962,550
1924	9	9,416,545	1,359	1,486,702	5,096,892	8,876,786
1929	13	13,066,423	1,368	1,518,280	7,798,893	11,798,165
1930	13	12,281,660	1,058	1,182,568	6,059,887	8,551,349
1933	11	9,839,262	1,015	1,027,460	2,461,395	4,740,612
1937	10	11,254,478	1,030	1,132,435	3,907,340	6,578,967
1938	10	10,437,106	882	1,007,597	3,057,839	4,910,962
<u>1939</u>						
CANADA.....	10	10,376,100	978	1,055,702	2,710,778	4,966,074
Ontario.....	6	9,047,210	811	868,254	2,266,159	3,986,428
Other Provinces	4	1,328,890	167	187,448	444,619	979,646
<u>1940</u>						
CANADA.....	11	12,190,563	1,285	1,533,026	4,903,793	9,192,945
Ontario.....	6	10,554,732	1,042	1,229,161	4,164,237	7,611,608
Other Provinces	5	1,635,831	243	303,865	739,556	1,581,337
(x)						

(x) Included in 1940 - three establishments in Quebec, one in Nova Scotia and one in British Columbia.

Profits or losses cannot be estimated from the figures published in this report as no data are collected for overhead expenses, such as interest, rent, depreciation, taxes, insurance, advertising, etc.

Table 2. - Comparison of Principal Statistics, 1939 and 1940.

Items	1939	1940	Increase
Establishments reporting.....No.	10	11	1
Capital invested.....\$	10,376,100	12,190,563	1,814,463
Employees on salaries -			
Total.....No.	111	135	24
Male.....No.	85	102	17
Female.....No.	26	33	7
Total Salaries.....\$	269,070	317,522	48,452
Employees on wages -			
Monthly average.....No.	867	1,150	283
Male.....No.	615	818	203
Female.....No.	252	332	80
Total wages.....\$	786,632	1,215,504	428,872
Power equipment -			
Units.....No.	340	417	77
Horse-power capacity.....H.P.	7,485	8,270	785
Cost of fuel and electricity.....\$	101,436	129,940	28,504
Cost of materials used.....\$	2,710,778	4,903,793	2,193,015
Gross value of production.....\$	4,966,074	9,192,945	4,226,871
Value added by manufacture (A).....\$	2,153,860	4,159,212	2,005,352

(A) Gross value of production less cost of materials and fuel and electricity used.

THE CORDAGE, ROPE AND TWINE INDUSTRY IN CANADA, 1940.

Table 3. - Production, 1939 and 1940.

Principal Products	Unit of Measure	1939		1940	
		Quantity	Selling Value at Factory	Quantity	Selling Value at Factory
			\$		\$
Binder twine -					
Chiefly sisal.....	lb.	29,107,803	1,595,251	40,197,095	2,530,364
All sisal and other.....	"	20,157,557	1,194,725	36,433,746	2,859,248
Twines for sale - Hemp.....	"	199,180	76,967	x	x
Sisal.....	"	1,778,697	195,389	3,685,627	552,929
All other..	"	3,163,029	421,932	3,471,382	697,997
Rope -					
Manila.....	"	6,694,423	1,002,800	9,782,237	1,511,989
Sisal.....	"	1,156,237	149,552	1,427,187	168,630
Cotton.....	"	106,494	35,801	108,851	42,002
Jute.....	"	73,429	9,723	131,528	20,637
Hemp.....	"	98,016	31,590	496,136	236,180
All other.....	"	16,745	1,842	18,665	2,240
All other products, unable to specify.....	-	-	250,502	-	520,729
TOTAL PRODUCTION.....	-	-	4,966,074	-	9,192,945

(x) Less than three firms reporting. Included in "All other".

The statistics published in this report include only the statistics of manufacturing establishments whose principal products are cordage, rope and twine. Statistics relating to specific products, such as twines, are not to be regarded as the total for Canada, since some of these products are also produced in cotton textile establishments.

Table 4. - Consumption of Binder Twine in Canada for the Years 1938-1940.

	1938		1939		1940	
	Quantity	Value	Quantity	Value	Quantity	Value
	Cwt.	\$	Cwt.	\$	Cwt.	\$
Production.....	410,769	2,958,001	492,654	2,789,976	766,308	5,439,612
plus Imports.....	196,159	1,268,925	257,152	1,491,964	112,490	996,688
TOTAL.....	606,928	4,226,926	749,806	4,281,940	878,798	6,436,300
less Exports.....	159,428	1,047,284	177,787	969,263	201,499	1,501,256
AVAILABLE FOR CONSUMPTION...	447,500	3,179,642	572,019	3,312,677	677,299	4,935,044

THE CORDAGE, ROPE AND TWINE INDUSTRY IN CANADA, 1940.

Table 5. - Materials Used, 1939 and 1940.

Principal Materials	Unit of Measure	1939		1940	
		Quantity	Cost Value at Factory	Quantity	Cost Value at Factory
			\$		\$
HARD FIBRES -					
Manila hemp.....	lb.	7,242,020	402,648	11,156,037	678,898
New Zealand hemp.....	"	80,520	3,764	53,985	2,525
African hemp.....	"	19,898,675	802,847	27,679,094	1,313,003
Java sisal.....	"	5,433,568	263,023	10,049,733	531,434
Mexican sisal.....	"	15,504,851	551,016	15,670,270	626,632
Other hard fibres.....	"	3,500,164	127,776	13,441,768	592,187
SOFT FIBRES -					
Hemp, hemp tow, flax, flax tow and jute.....	lb.	3,354,464	167,606	5,364,553	417,465
Twines, cotton and linen..	"	76,785	58,954	x	x
Yarns, purchased -					
Flax, hemp and jute.....	lb.	521,728	51,298	819,911	159,313
Cotton and other.....	-	-	30,178	-	40,371
Oils.....	-	-	108,766	-	177,954
Wax.....	-	-	3,070	-	6,776
Degras.....	-	-	5,503	-	7,365
Soap, starch, dyes and other chemicals.....	-	-	19,352	-	49,238
All other materials and supplies.....	-	-	17,921	-	75,163
Packing and shipping materials:					
Burlap.....	lb.	1,058,453	69,039	1,570,418	168,002
Other packing and shipping materials....	-	-	28,017	-	57,467
TOTAL COST OF MATERIALS USED.....	-	-	2,710,778	-	4,903,793

(x) Less than three firms reporting. Included in "All other".

THE CORDAGE, ROPE AND TWINE INDUSTRY IN CANADA, 1940.

Table 6. - Capital Invested representative years, 1921-1940.

Year and Provinces	Fixed Capital	Working Capital		Total Capital
	Land, buildings, fixtures, machinery, tools, etc.	Stocks of raw materials and finished products on hand, goods in process, fuel and mis- cellaneous supplies, etc.	Cash, bills and accounts receivable, prepaid expenses, etc.	
	\$	\$	\$	\$
1921.....	3,022,161	2,697,790	2,141,115	7,861,066
1923.....	3,421,557	2,143,556	1,764,206	7,329,319
1926.....	5,774,524	5,859,920	4,045,125	15,679,569
1927.....	5,965,331	5,401,592	3,523,297	14,890,220
1928.....	5,346,038	2,627,292	4,200,219	12,173,549
1929.....	5,354,398	4,253,506	3,458,519	13,066,423
1930.....	5,274,962	3,274,323	3,732,375	12,281,660
1932.....	5,085,458	1,476,381	3,623,093	10,184,932
1933.....	5,073,234	2,099,449	2,666,579	9,839,262
1934.....	4,634,525	3,261,123	2,520,698	10,416,346
1935.....	4,683,573	2,336,790	3,970,723	10,991,086
1936.....	4,674,299	3,644,973	1,630,218	9,949,490
1937.....	4,679,711	5,175,204	1,399,563	11,254,478
<u>1 9 3 8</u>				
CANADA.....	4,666,414	3,455,212	2,315,480	10,437,106
Ontario.....	4,167,380	3,107,939	2,109,335	9,384,654
Other Provinces.....	499,034	347,273	206,145	1,052,452
<u>1 9 3 9</u>				
CANADA.....	4,725,034	2,976,397	2,674,669	10,376,100
Ontario.....	4,172,685	2,597,792	2,276,733	9,047,210
Other Provinces.....	552,349	378,605	397,936	1,328,890
<u>1 9 4 0.</u>				
CANADA.....	5,030,658	4,634,899	2,525,006	12,190,563
Ontario.....	4,458,939	4,062,845	2,032,948	10,554,732
Other Provinces.....	571,719	572,054	492,058	1,635,831

THE CORDAGE, ROPE AND TWINE INDUSTRY IN CANADA, 1940.

Table 7. - Employees by Sex and Remuneration, 1939 and 1940.

	1 9 3 9	1 9 4 0
Salaried Employees -		
Total No.	111	135
Male..... No.	85	102
Female..... No.	26	33
Total salaries..... \$	269,070	317,522
Wage-earners -		
Monthly average..... No.	867	1,150
Male..... No.	615	818
Female..... No.	252	332
Total wages..... \$	786,632	1,215,504
All Employees -		
Total..... No.	978	1,285
Male..... No.	700	920
Female..... No.	278	365
Salaries and wages..... \$	1,055,702	1,533,026

Table 8. - Monthly Employment of Wage-earners, 1938-1940.

Months	1 9 3 8			1 9 3 9			1 9 4 0		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.
January	600	247	847	610	252	862	801	296	1,097
February....	579	240	819	614	250	864	861	355	1,216
March.....	573	230	803	608	249	857	866	384	1,250
April.....	575	231	806	630	254	884	907	404	1,311
May.....	571	230	801	596	250	846	896	409	1,305
June.....	614	250	864	613	252	865	871	319	1,190
July.....	612	246	858	646	252	898	869	326	1,195
August.....	616	248	864	617	244	861	830	310	1,140
September...	370	75	445	543	225	768	793	302	1,095
October.....	469	146	615	615	265	880	708	287	995
November....	565	215	780	636	267	903	700	287	987
December...	564	215	779	636	263	899	717	301	1,018
MONTHLY AVERAGE...	557	213	770	615	252	867	818	332	1,150

THE CORDAGE, ROPE AND TWINE INDUSTRY IN CANADA, 1940.

Table 9. - Number of Hours Worked by Wage-Earners During one week together with Average Weekly Earnings, 1939 and 1940.

Number of Hours Worked per Week	1939 (1)		1940 (2)	
	Male	Female	Male	Female
	No.	No.	No.	No.
30 hours or less.....	-	-	2	1
31 - 43 hours.....	93	53	2	2
44 hours.....	3	15	1	-
45 - 47 hours.....	-	2	96	56
48 hours.....	286	43	192	47
49 - 50 hours.....	166	123	266	245
51 - 54 hours.....	2	1	8	17
55 hours.....	43	35	64	47
56 - 64 hours.....	36	-	326	35
65 hours and over.....	-	-	5	-
Average hours per week.....	47.9	47.2	52.8	50.3
Average weekly earnings.....	\$21.73	\$14.30	\$23.40	\$17.00

(1) One week in month of normal employment, and overtime not included.

(2) One week in month of highest employment, and overtime included.

Table 10. - Power Installation, 1939 and 1940.

Classes of Power	1 9 3 9		1 9 4 0	
	Number of Units	Manufacturers' Rating of Horse-power Capacity	Number of Units	Manufacturers' Rating of Horse-power Capacity
Steam engines and steam turbines.....	1	200	1	200
Electric motors, operated by purchased power - In use.....	317	6,558	389	7,415
Idle.....	22	727	27	655
TOTAL POWER USED IN MANU- FACTURING.....	340	7,485	417	8,270
Boiler installation - in use idle..	13 1	1,934 150	14 6	1,598 750

THE CORDAGE, ROPE AND TWINE INDUSTRY IN CANADA, 1940.

Table 11. - Consumption of Fuel and Electricity, 1939 and 1940.

Kinds of Fuel	Unit of Measure	1 9 3 9		1 9 4 0	
		Quantity	Cost Value at Factory	Quantity	Cost Value at Factory
Coal -	Ton		\$		\$
Bituminous.....	(2000 lbs.)	4,575	26,555	5,576	33,281
Gasoline (including gasoline used in cars and trucks).....	Imp. Gal.	-	-	4,990	1,388
Kerosene or coal oil...	Imp. Gal.	418	74	100	19
Wood.....	Cord	4	38	4	34
TOTAL COST OF FUEL.	-	-	26,667	-	34,722
Electricity purchased (including service charges).....	Kw.H.	7,622,429	74,769	11,379,963	95,218
TOTAL COST OF FUEL AND ELECTRICITY.....	-	-	101,436	-	129,940

Table 12. - Mechanical Equipment, 1939 and 1940.

	1 9 3 9	1 9 4 0
	No.	No.
Spindles which consumed fibre during the year.....	4,041	4,383
Spindles which consumed no fibre during the year.....	351	233
Twisting and doubling spindles.....	650	613
Braiding machines.....	115	134
Rope machine.....	126	113
Winding machines.....	486	313
Netting machines.....	6	6
TOTAL.....	5,775	5,795

THE CORDAGE, ROPE AND TWINE INDUSTRY IN CANADA, 1940.

Table 13. - Imports of Materials Used and Products Made by the Cordage, Rope and Twine Industry, 1939 and 1940.

Articles Imported	Unit of Measure	1939		1940	
		Quantity	Value	Quantity	Value
			\$		\$
Fibrilla, flax fibre and flax tow.....	Cwt.	4,519	7,253	7,123	12,407
Hemp, dressed or undressed.....	"	10,445	80,237	874	26,207
Jute and jute butts.....	"	20,464	81,455	72,260	431,740
Okum of flax, hemp or jute.....	"	14,145	95,132	16,648	135,013
Sisal, istle and tampico fibre.....	"	468,883	1,736,464	756,269	3,518,817
Manila fibre.....	"	87,959	415,555	121,357	660,511
Vegetable fibres, n.o.p....	"	19,932	107,744	18,053	96,451
Coir and coir yarn.....	"	4,555	15,512	9,605	37,907
Yarns, jute, singles, n.o.p.	Lb.	1,593,681	149,874	1,210,556	184,672
Yarns, vegetable fibres, singles, n.o.p.....	Lb.	139,033	21,052	233,668	55,353
Yarns, cords and twines, jute, plied, n.o.p.....	Lb.	222,303	22,039	204,556	32,523
Yarns, cords and twines, vegetable fibres, plied, n.o.p.....	Lb.	704,733	110,435	723,415	149,047
Cords and twine, cotton, n.o.p.....	"	225,243	59,149	152,647	67,396
Sail twine of hemp or flax for the manufacture of boats' and ships' sails..	"	1,192	367	227	214
Binder twine.....	Cwt.	257,152	1,491,964	112,490	996,688

THE CORDAGE, ROPE AND TWINE INDUSTRY IN CANADA, 1940.

Table 13. - Imports of Materials Used and Products Made by the Cordage, Rope and Twine Industry, 1939 and 1940. - (Concluded).

Articles Imported	Unit of Measure	1939		1940	
		Quantity	Value	Quantity	Value
			\$		\$
Threads, twines, marlines, fishing lines, of vegetable fibre for fishing purposes or for the construction or repair of fishing nets; not to include such articles used for sportsmen's purposes. (Included "Fish nets and netting" prior to April 1, 1939)	Lb.	-	906,051	1,327,591	679,395
Fish nets and nettings (commercial) (From April 1, 1939)	-	-	442,535	-	1,131,431
Cordage, manila, sisal and New Zealand fibre, exceeding one inch in circumference..	Lb.	1,094,766	104,391	1,331,849	146,696
Cordage, exceeding one inch in circumference, wholly of vegetable fibre, n.o.p.....	Lb.	318,155	42,516	505,126	73,950
Cordage, exceeding one inch in circumference, n.o.p....	Lb.	7,692	1,663	147	76
Rope and cordage of cotton, hemp, manila, or other vegetable fibre, not exceeding one and one-half inches in circumference, to be used for fishing purposes, or for the construction and repair of fishing nets; the foregoing not to include such articles used for sportsmen's purposes.....	Lb.	1,017,143	134,465	695,289	99,546

Table 14. - Exports of Cordage, Rope and Twine, etc. 1939 - 1940.

Articles Exported	Unit of Measure	1939		1940	
		Quantity	Value	Quantity	Value
			\$		\$
Fibre and tow of flax or hemp.....	Cwt.	15,465	121,593	25,006	465,131
Binder twine.....	"	177,787	969,263	201,499	1,501,256
Cordage, rope and twine, n.o.p.....	-	-	106,378	-	236,915

THE CORDAGE, ROPE AND TWINE INDUSTRY IN CANADA, 1940

A P P E N D I X

Cordage, Rope and Twine Manufacturers Operating in Canada in 1940

<u>Name of Firm</u>	<u>Location</u>	<u>Products Made</u>
<u>NOVA SCOTIA</u>		
Consumers' Cordage Company, Ltd., (H.O. 2143 St. Patrick Street, Montreal.)	Wyse Road, Dartmouth.	Binder Twine, Rope.
<u>QUEBEC</u>		
Bolduc, The C.N., Manufacturing Co.	12 College Street, Lennoxville.	Rope
Consumers' Cordage Company, Ltd.	2143 St. Patrick St., Montreal.	Rope, Twine.
Turner, C.A., Manufacturing Co.	199 Victoria St., Sherbrooke	Rope.
<u>ONTARIO</u>		
Brantford Cordage Co. Ltd., The,	111 Brant Street, Brantford.	Binder Twine.
Derrett Limited,	6 Bartlett Avenue, Toronto.	Twines, Rope.
Doon Twines Limited,	50 Ottawa Street S. Kitchener.	Yarns, Twines, Rope.
International Harvester Company of Canada, Limited,	Hillyard St., Hamilton	Binder Twine.
Plymouth Cordage Company,	229 Plymouth Road,, Welland.	Binder Twine, Twines, Rope.
<u>BRITISH COLUMBIA</u>		
Canada Western Cordage Company Limited, (H.O. 20 Water St., Vancouver)	Braid Street, New Westminster.	Binder Twine, Twines, Rope.

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